REMARKS

We trust that the Examiner will now find the application to be in condition for allowance and reconsideration is respectfully requested.

The Examiner will first note that the objection to the drawings is noted and corrected sheets are attached hereto.

Regarding the 35 USC §112 claim rejections, the claims have been amended to identify the following features of the disclosed embodiments: (i) "predefined points," which are the points of interest on the blade, including, e.g., the blade tip (*see*, page 7, lines 25-30, page 9, lines 1-3); (ii) "position indicators," which are located at, e.g., the predefined points, which include, e.g., "GPS receivers or the like," and which are capable of "identifying their position and hence the positions of the predefined points" (*see*, Figure 1A, page 7, lines 25-30; page 9, lines 3-6); (iii) "reference points," which are, e.g., "in the form of GPS satellites," and which are used by the position indicators "to determine their position" (*see*, page 9, lines 3-6); and (iv) "predefined reference positions," which are the "positions of the [predefined] points defined in advance," and when compared with measured positions of the predefined points, the flexing of the blade may be determined (*see*, page 12, lines 25-38). Based on amendments to the claims to identify these disclosed features, it is believed that the rejections under 35 USC §112 have been addressed.

Accordingly, the present invention relates to a method, system and a blade for monitoring the operation of a wind energy plant by use of position indicators positioned in predefined points on the blades of the plant wind turbines. This monitoring of the operation of a wind energy plant enables optimization of the operation and determination of deformations of a blade based on the absolute position of the position indicator positioned on the blade.

Claims 1-3, 5, 7, 8 and 10 were again rejected as being anticipated by Rebsdorf (USP 6,619,918). As the Examiner acknowledges, Rebsdorf teaches the use of a strain gauge on the blade to measure mechanical loads where the measured mechanical loads on the blades are used to calculate the positions of the blade tip. At best, this indirect measurement of the blade tip location is imprecise since the strain gauge position is not the position of interest and hence the strain gauge readings only help determine the position of the actual point of interest. As distinct from Rebsdorf, the present invention is directed at a direct method to determine the position of a specific point on a wind turbine blade. In other words, whereas the Rebsdorf reference results in theoretical values for the position of interest, the GPS sensors of the present invention result in real time values. Thus, Rebsdorf teaches positioning a strain gauge at a predetermined point rather than a position indicator at that point. The Rebsdorf strain gauge cannot indicate the position of the strain gauge but only the mechanical load at that position. Since the position of the Rebsdorf strain gauge cannot be determined from the strain gauge reading, the position of the predefined point cannot be directly determined. In distinction, as set forth in amended claim 1 of the present application, once the position of the position indicator is determined, the position of the predefined point may be directly determined. The examiner will appreciate that with the advent of next generation extremely accurate atomic clocks as recently introduced by the National Institute of Standards (NIST), GPS technology is entering into a new era with extremely sensitive positioning precision.

The Examiner argues that Roberts (US 2003 0006615) teaches the use of GPS sensors as a means of location for a wind-driven generator and that it would be obvious to a person having ordinary skills in the art at the time the invention was made to modify the wind energy plant system and blades of Rebsdorf to use GPS sensors as position sensors, as taught by Roberts, in

order to monitor the position of the blades because the modification amounts to a simple substitution of known, equivalent elements for tracking position which could be made by a person of ordinary skills with predictable results. However, GPS sensors are by no means the equivalent of strain gauges. Strain gauges measure mechanical loads based on the curvature of the strain gauge as determined (usually) by means of a Wheatstone bridge. A GPS sensors utilizes the broadcast signals from GPS satellites to provide the three-dimensional location of the sensor.

Roberts does not teach a method to determine the precise location of a specific point on wind turbine blades; actually, Roberts teaches controlling flying electric generators which resemble helicopters. The Roberts' sensors are means to determine the geographic position and altitude location relative to a ground frame of reference - not the position of a specific point on a wind turbine blade to optimize the operation of this wind turbine blade nor determination of deformations of a blade based on the absolute position of this specific point on the blade.

As noted above, the claims have been amended to emphasize that they are directed to a direct method to determine the position of the tip of a wind turbine blade. It is respectfully submitted that this is neither taught nor suggested by the indirect method of the prior art.

In view of the above, it is respectfully submitted that the application as amended herein is in condition for allowance. A relatively early notification of allowance is respectfully requested.

Respectfully submitted,

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